REFERENCES

LOCUS:

ASSESSOR MAP 31, PARCEL 012
BOOK 61203, PAGES 279
PLAN BOOK 958, PLAN 55,
PLAN BOOK 948, PLAN 11

LELAND STREET IS NO LONGER A STREET
IT WAS DISCONTINUED BY CITY VOTE
PLAN BOOK 885, PLAN 75

SEE PLAN BOOK 948, PLAN 11 FOR
FORMER HOUSE LOCATION AT 18 LELAND STREET
PAVEMENT EXISTED FOR A DRIVEWAY

TEST HOLE INFORMATION

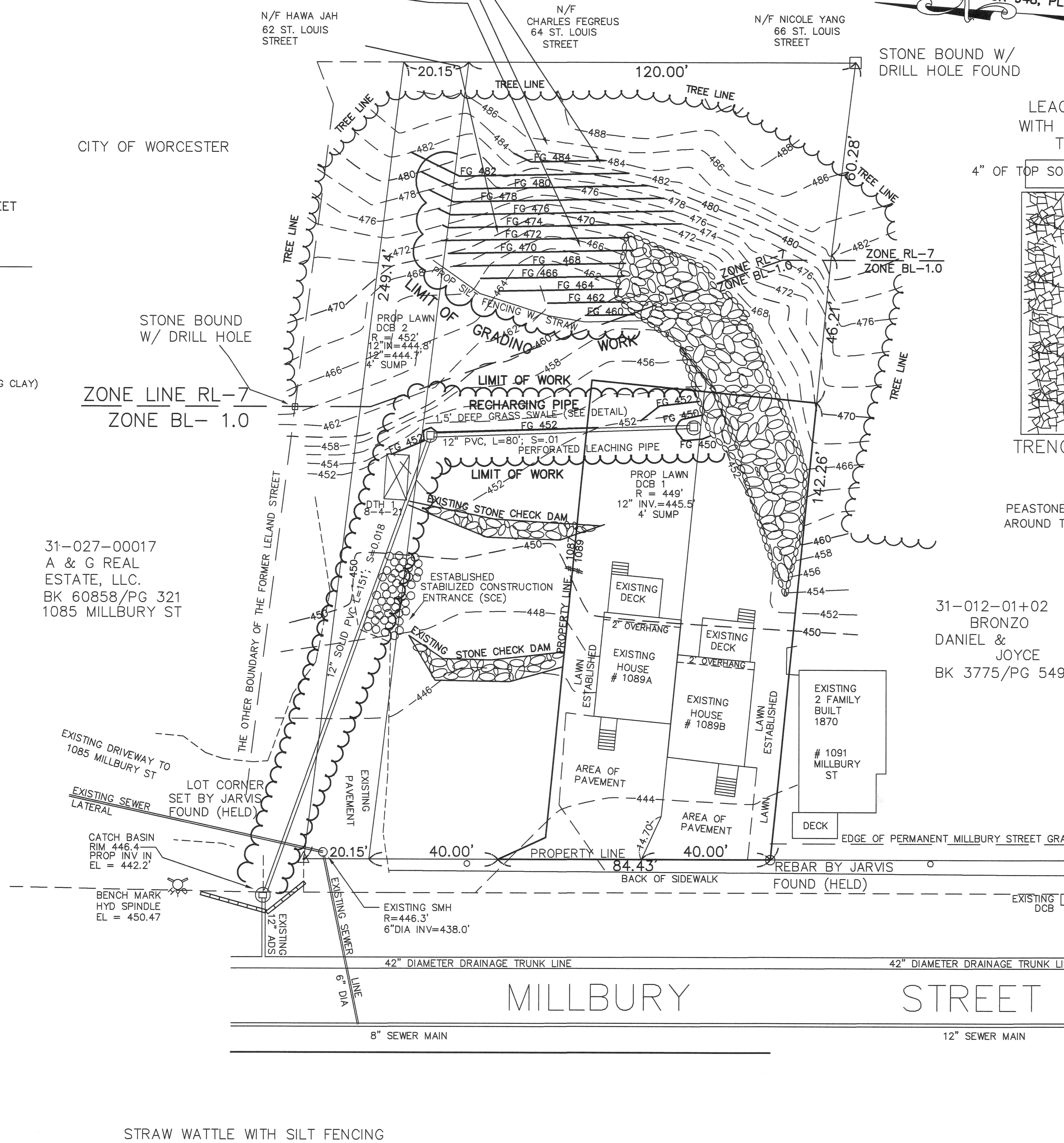
DTH 1 DATE: 8-4-21 GROUND EL = 452.8'

0-22"	Ap	LOAM	10 YR 3/2
22"-38"	Bw	SL	10 YR 5/8
38"-70"	C1	SL	10 YR 6/2
70"-234"	C2	SL	10 YR 5/2

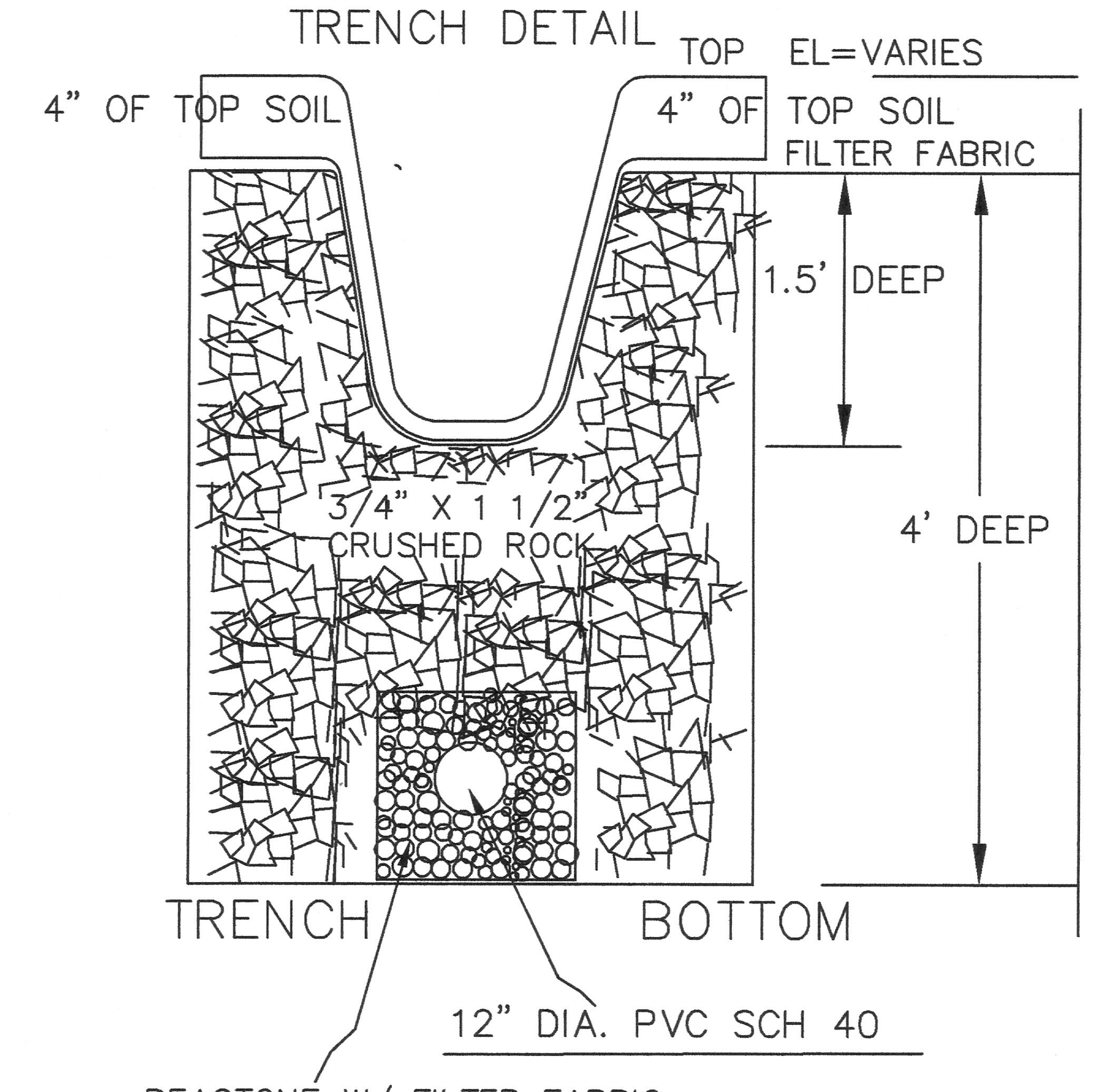
MOTTLES AT 48' - EL = 448.8'
BREAKOUT AT 150" - EL= 440.3'
STANDING WATER 220"; EL = 434.5'

C LAYER SOILS HAVE A MASSIVE TEXTURE (LIKE MODELING CLAY)
C LAYER SOIL CONSISTANCY COULD BE TERMED WET

EROSION CONTROL MATS ARE TO COVER THE FINISH GRADED SECTIONS OF THE SLOPE. THIS FINISH GRADING IS TO BE A MINIMUM OF 2 TO 1 SLOPE.



LEACHING DRAIN PIPE WITH OVERHEAD SWALE TRENCH DETAIL



NOTES:

THE PURPOSE OF THIS PLAN IS TO RECREATE THE ON GROUND CONDITIONS OF THE SUBJECT PROPERTIES AS THEY EXISTED DURING THE CALENDER YEAR 2018.

THOSE PROPERTIES HAD THE FOLLOWING STREET ADDRESES:
1089 MILLBURY STREET
1087 MILLBURY STREET
REAR LAND OWNED BY GOLD STAR (FORMER 18 LELAND LOT)

THE REAR LOT AREA OF BOTH 1089 A+B IS TO BE LOAMED & SEEDED AS SOON AS PRACTICAL.

IF APPROVED, THE PROPOSED LAWN CATCH BASIN DRAINAGE SYSTEM WILL HAVE A 20' WIDE ACCESS, EGRESS, MAINTANENCE, AND UTILITY EASEMENT.

ON ALL SLOPES WHICH ARE BEING FINISHED GRADED, JUTE EROSION CONTROL MATS, WHICH WILL BE DIRECTLY SECURED INTO THE SLOPE WILL BE CAPABLE OF HAVING A LAYER OF GRASS. THESE MATS WILL PROMOTE THE GROWTH OF GRASS, AND WILL ALSO ALLOW A ROOT SYSTEM TO BE ESTABLISHED. THIS ESTABLISHED ROOT SYSTEM WILL ALLOW THE GRASS TO FLOURISH.

TIMELINE: (TIMES ARE IN PARENTHESES)

1. INSTALL SILT FENCING WITH STRAW WATTLE AS SHOWN ON THIS PLAN. (2 DAYS)
2. BRING SUITABLE FILL MATERIAL TO THE JOB SITE TO REPLACE THE EXCAVATED HILLSIDE EARTHEN MATERIAL. PREVIOUSLY, ANY EXCESS EXCAVATED MATERIAL WAS TAKEN OFF SITE. (3 DAYS)
3. WHILE MATERIAL IS BEING BROUGHT TO THE SITE, SIMULTANEOUSLY START THE FINISH GRADING OF THE EXPOSED HILLSIDE SLOPE. (4 DAYS)
4. WHEN FINISH GRADING OF THE CUT SECTION OF THE HILLSIDE IS START COMPLETED, SPREADING A 4" THICK LAYER OF LOAM OVER THE FINISH GRADED SLOPED FILL MATERIAL. (1 DAY)
5. SEED THE SLOPE.
6. INSTALL AND SECURE THE EROSION CONTROL MATS OVER THE LOAM & SEED. THESE JUTE EROSION CONTROL MATS ARE 100% BIODEGRADABLE. THESE MATS ARE DESIGNED TO ALLOW THE SEED TO GERMINATE AND ESTABLISH A FIRM ROOT SYSTEM FOR THE GRASS. (2 DAYS)
7. WHEN THE SLOPE IS STABLIZED, CONSTRUCTION OF THE 2 (TWO) LAWN CATCH BASINS CAN BEGIN. THE 12" DIAMETER PERFORATED PIPING BETWEEN THE THE CATCH BASINS WILL ACT AS A LEACHING TRENCH. THIS LEACHING ACTION WILL ALLOW FOR A RECHARGE OF THE AQUIFER. (4 DAYS)
8. DIRECTLY ABOVE THE 12" PIPING WILL BE A DRAINAGE COLLECTION SWALE. THIS PAROBOLIC SWALE IS TO BE 1.5' DEEP BY 3' WIDE. (1 DAY)
8. WHEN WHEN THE DRAINAGE WORK IS COMPLETED, ALL EXPOSED EARTH AREAS ARE TO BE LOAMED AND SEEDED AS SOON AS PRACTICAL.

IMPERVIOUS CALCULATIONS

A= DUPLEX W/ DECKS = 1,824 SF
A= ALL AREAS OF PAVEMENT = 2,145 SF (+/_)
TOTAL IMPERVIOUS = 3,969 SF (+/_)

A= RIP RAP STONE AREA = 2,200 SF

TOTAL (GOLD STAR) LAND AREA
AREA =35,229 SF

$$\text{PERCENT IMPERVIOUS} = \frac{3{,}969\ \text{SF}}{35{,}229\ \text{SF}} = 11.27\ \%$$

THE FOLLOWING IS A PLAN WHICH IS DESIGN TO PREVENT EROSION CONTROL & TO RECHARGE THE AQUIFER WITH THE USE OF LEACHING TRENCHES.

COMMONWEALTH OF MASSACHUSETTS MICHAEL J. BURKE No. 23374 REGISTERED PROFESSIONAL ENGINEER

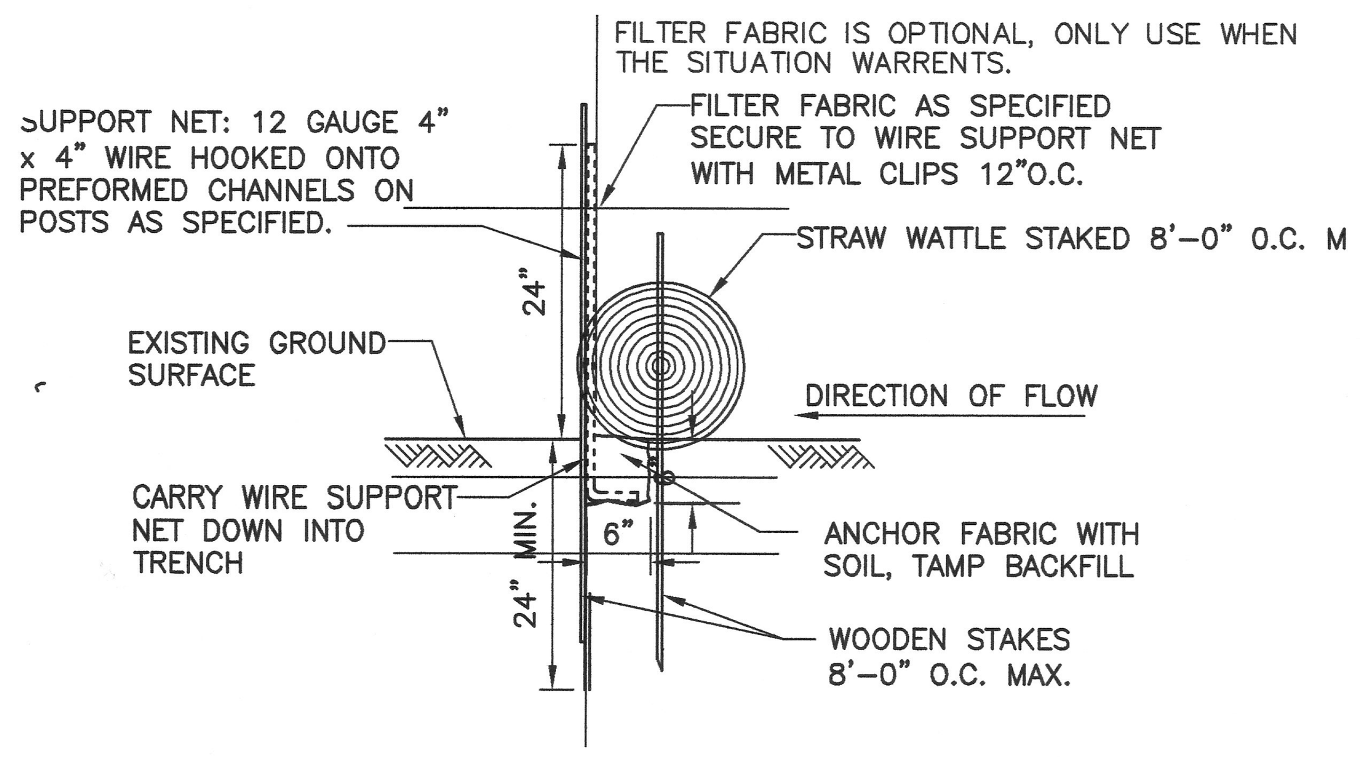
10/20/21

MICHAEL BURKE P.E. # 23374
ASSISTED BY DAVID SADOWSKI S.I.T. & C.E.

LEGEND:

BK = BOOK
PG = PAGE
BND = BOUND
PAR = PARCEL
FND = FOUND
DH = DRILL HOLE
IR = IRON REBAR
SB = STONE BOUND
GB = GRANITE BOUND
MAP = ASSESSORS MAP
N/F = NOW OR FORMERLY
➡ = TRAFFIC FLOW ARROW
NTS = NOT TO SCALE
DIA = DIAMETER
FG = FINISH GRADE
PERF = PERFORATED
DTH = DEEP TEST HOLE
DCB = DRAIN CATCH BASIN
INV = INVERT
R = RIM

STRAW WATTLE WITH SILT FENCING INSTALLATION DETAIL

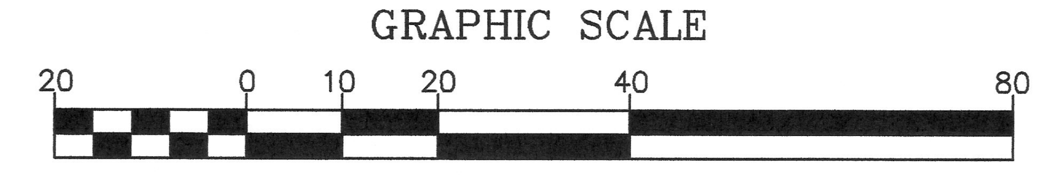


HANES GEO COMPONENTS JUTE MATS

FEATURES
MATRIX - 100% BIODEGRADABLE
LONGEVITY - 2 TO 3 YEARS
ROLL - 78.74 INCHES WIDE
LENGTH - 164 FEET PER ROLL
AREA COVERED 110 SQUARE YARDS
THICKNESS - 4" THICK

THE LOCAL DISTRIBUTER IS LOWES HOME IMPROVEMENT

GRAPHIC SCALE



(IN FEET)
1 inch = 20 ft.

PROPOSED LAWN DRAINAGE PLAN
1087-1089 MILLBURY STREET
WORCESTER, MASSACHUSETTS

PREPARED FOR:	GOLD STAR CONSTRUCTION 6 JACQUES STREET WORCESTER, MA.
OWNER:	GOLD STAR CONSTRUCTION 6 JACQUES STREET WORCESTER, MA.

D. J. & ASSOCIATES
7 CEDAR STREET
CLINTON, MA 01510
978-875-0741

REV 3: EROSION MATS CHANGED	DATED: 09/19/21
REV 2: EROSION CONTROL ADDED	DATED: 09/13/21
REV 1: PER DPW ENGINEERING REVIEW	DATED: 08/21/21
DATE: FEBRUARY 19, 2021	SCALE: 1" = 20'